UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/470,982	12/23/1999	DAE-HYUK SHIM	DR-001	6849

7590 01/28/2004

Fleshner & Kim, LLP
14500 Avion Parway
Suite 125
Chantilly, VA 20151

EXAMINER	
NGUYEN, PHUONGCHAU BA	

ART UNIT	PAPER NUMBER
2665	10

DATE MAILED: 01/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/470,982	SHIM, DAE-HYUK	
	Examiner	Art Unit	
	Phuongchau Ba Nguyen	2665	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 November 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-36* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *22-29* is/are allowed.

6)☒ Claim(s) *1,11,12,21,30 and 32* is/are rejected.

7)☒ Claim(s) *2-10,13-20,31 and 33-36* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 11, 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Chopping (6,442,163)

Regarding claim 11:

Chopping (6,442,163) discloses an apparatus (cell frame aligner) for checking a loss of frame, comprising;

a first circuit (frame alignment signal detector, fig.2) that detects a frame alignment signal in a framed data of a digital hierarchy signal {col.2, lines 27-32}; and

a second circuit (aligner) that checks whether the framed data is normal, and provides a releasing state (so that to whether fill-in the missing cell or not; col.2, lines 18-22) according to a checking result, wherein the framed data is reframed data {col.2, lines 18-22 wherein the fill-in cell}.

Regarding claim 21:

Chopping further discloses a third circuit that outputs a state indication signal (loss of frame alignment signal; fig.2).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1, 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keller (5,671,227) in view of Hernandez-Valencia (6,266,327).

Regarding claims 1, 30 :

Keller (5,671,227) discloses a reframer (fig.3), comprising a first circuit (first detection circuit 1, fig.3) that detects a frame start point of input data based on a frame alignment signal defined in a framed data of a digital hierarchy signal {col.1, lines 22-27; col.2, lines 19-23} and a second circuit (evaluation circuit 3, fig.3).

Keller does not explicitly disclose the second circuit (evaluation circuit 3, fig.3) that excludes the input data having an improper start point based on a frame start point detecting value, and that outputs reframed data having a normal frame format, wherein the reframed data is based on the excluded input data.

However, in the same field of endeavor, Hernandez-Valencia (6,266,327) discloses excluding the input data (frame) having an improper start point based on a frame start point detecting value {col.2, lines 57-60; col.9, lines 38-42}, and that outputs reframed data (only the conformance data, not the non-conformance data) having a normal frame format, wherein the reframed data is based on the excluded input data {col.9, lines 21-22}.

Therefore, it would have been obvious to an artisan to apply Hernandez-Valencia's teaching to Keller's system with the motivation being to maximize data transmission and traffic on the network by not transmitting the non-conforming frame.

Regarding claim 32:

Keller further discloses wherein the frame alignment signal is a 12-bit signal {col.4, lines 3-6; fig.2}.

5. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chopping (6,442,163) in view of Hernandez-Valencia (6,266,327).

Regarding claim 12:

Chopping does not explicitly disclose a detector that checks first constant bits inputted on a frame start pulse location of the framed data, and generates one of a releasing enable signal or a declaring enable signal based on the first constant bits.

However, in the same field of endeavor, Hernandez-Valencia discloses checking first constant bits (PTI) inputted on a frame start pulse location (header) of the framed data, and generates one of a releasing enable signal (conformance) or a declaring enable signal based on the first constant bits {col.9, lines 1-7, 38-42}. Therefore, it would have been obvious to an artisan to apply Hernandez-Valencia's teaching into Chopping's system with the motivation being to maximize data transmission and traffic on the network by not transmitting the non-conforming frame.

Allowable Subject Matter

6. Claims 2-10, 13-20, 31, 33-36 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. Claims 22-29 are allowed over the prior art of the record.

Response to Arguments

8. Applicant's arguments filed 11-21-03 have been fully considered but they are not persuasive.

A/. Applicant argued that fill-in cell in Chopping would not teach a second circuit that outputs reframed data.

In reply, by fill-in data in the missing data would reframe the data, because the original data is the one without the missing data, and the reframe data generated by Chopping having the fill-in data in its frame {fig.2}

B/. Applicant argued that Keller does not teach detecting a frame start point of the input data based on a frame alignment signal defined in a framed data of digital hierarchy signal.

In reply, Keller does disclose detecting a frame start point of the input data based on a frame alignment signal defined in a framed data of digital hierarchy signal {col.3, lines 52-54; col.1, lines 65-67}.

C/. Applicant argued that Hernandez-Valencia fails to teach outputting reframed data having a normal frame format.

In reply, Hernandez-Valencia does teach outputting reframed data having a normal frame format {col.2, lines 19-21, wherein the first six conformance cells from frame 61 are able to transmitted onto ATM network, and its two non-conformance cells 71 are not transmitted onto the network (to avoid congestion). Also, since frame 61 was transmitted with only six conformance cells, frame 61 is not conformed, therefore, the PTI bit is set, upon received the conformance six cells of the non-conformance frame 61 (by having the PTI set), the ATM network element discarded all the six conformance cells of the non-conformance frame 61. The non-conformance frame 61 with the six conformance cells (reframe data because frame 61 does not have two excess/non-conformance cells 71)---emphasis added}

D/. Applicant argued that Hernandez-Valencia fails to teach a detector checking first constant bits inputted on a frame start pulse location of the

framed data, and generates one of a releasing enable signal or declaring enable signal based on the first constant bits.

In reply, Hernandez-Valencia does teach a detector (ATM network element, abstract, line 1) checking first constant bits (PTI field) inputted on a frame start pulse location (header portion) of the framed data, and generates one of a releasing enable signal or declaring enable signal {frame is conforming when the frame is enabled with conforming status (PTI indicating of frame status, conforming or non-conforming), thus conformance test is continued (conforming frame would not be discarded), col.9, lines 21-22} based on the first constant bits (PTI field) {col.9, lines 3-7}.

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH

shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuongchau Ba Nguyen whose telephone number is 703-305-0093. The examiner can normally be reached on Monday-Friday from 10:00 a.m. to 3:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on 703-308-6602. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

PN

Phuongchau Ba Nguyen
Examiner
Art Unit 2665

STEVEN H.D NGUYEN
PRIMARY EXAMINER